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United States Patent [19]

Muller et al.

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[54] **USE OF TETRAHYDROFOLATES IN NATURAL STEREOISOMERIC FORM FOR THE PRODUCTION OF A PHARMACEUTICAL PREPARATION SUITABLE FOR INFLUENCING THE HOMOCYSTEINE LEVEL, PARTICULARLY FOR ASSISTING THE REMETHYLATION OF HOMOCYSTEINE**

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[51] **Int. Cl.**[7] **A61K 31/505**

[52] **U.S. Cl.** **514/258**

[58] **Field of Search** 514/258

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[57] **ABSTRACT**

This invention relates to the use of tetrahydrofolates in natural stereoisomeric form for the production of a pharmaceutical preparation suitable for influencing the homocysteine level, particularly for assisting the remethylation of homocysteine. Clinical areas of application include all anomalies of the homocysteine level, particularly the prevention and treatment of cardiovascular diseases and the prevention of neural tube deficiencies. The present invention also relates to pharmaceutical preparations comprising at least one compound selected from the group consisting of 5-formyl-(6S)-tetrahydrofolic acid, 5-methyl-(6S)-tetrahydrofolic acid, 5,10-methylene-(6R)-tetrahydrofolic acid, 5,10-methenyl-(6R)-tetrahydrofolic acid, 10-formyl-(6R)-tetrahydrofolic acid, 5-formimino-(6S)-tetrahydrofolic acid or (6S)-tetrahydrofolic acid or pharmaceutically compatible salts thereof, together with pharmaceutically compatible active and adjuvant substances, for influencing the homocysteine level, particularly when a methylene tetrahydrofolate reductase deficiency exists, such as when thermolabile methylene tetrahydrofolate reductase exists for example.

22 Claims, No Drawings